AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1-35. (Cancelled)

36. (Previously Presented) A bacterial artificial chromosome (BAC) containing bacterial nucleic acid sequences and an infectious herpes virus genomic sequence larger than 100 kb, wherein the BAC enables replication of the infectious herpes virus genomic sequence in a host cell.

37. (Previously Presented) The BAC of claim 36, wherein the infectious herpes virus genomic sequence is larger than 200 kb.

38.-39. (Cancelled)

40. (Previously Presented) The BAC of claim 36, wherein said herpes virus is a beta herpes virus.

41. (Previously Presented) The BAC of claim 40, wherein said beta herpes virus is a human cytomegalovirus.

42. (Previously Presented) The BAC of claim 40, wherein said beta herpes virus is a mouse cytomegalovirus.

43. (Previously Presented) The BAC of claim 36, wherein said herpes virus is a gamma herpes virus.

44. (Previously Presented) The BAC of claim 43, wherein said gamma herpes virus is murine gamma herpes virus 68 (MHV 68).

45. (Previously Presented) The BAC of claim 36, wherein the bacterial nucleic acid sequences are flanked by nucleotide sequences which are identical to each other and which, upon homologous recombination, enable excision of the bacterial nucleic acid sequences.

46. (Previously Presented) The BAC of claim 36, wherein the bacterial nucleic acid sequences are flanked by (i) recognition sequences for sequence-specific recombinases, (ii) unique restriction enzyme sites, or (iii) recognition sequences for sequence-specific recombinases and unique restriction enzyme sites.

47. (Previously Presented) The BAC of claim 46, wherein the recognition sequences are loxP sites.

48. (Previously Presented) The BAC of claim 36, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

49. (Previously Presented) The BAC of claim 45, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

50. (Previously Presented) The BAC of claim 46, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

51. (Previously Presented) A cell containing the BAC of claim 36.

52. (Previously Presented) A cell containing the BAC of claim 45.

53. (Previously Presented) A cell containing the BAC of claim 46.

54. (Previously Presented) A cell containing the BAC of claim 48.

55. (Previously Presented) A cell containing the BAC of claim 49.

56. (Previously Presented) A cell containing the BAC of claim 50.

57. (Previously Presented) A method of producing the BAC of claim 36, which method comprises:

(a) introducing bacterial nucleic acid sequences into a host cell containing infectious herpes virus genomic sequences, and

(b) recombining the bacterial nucleic acid sequences with the infectious herpes virus genomic sequences, whereupon the BAC is obtained.

58. (Original) The method of claim 57, wherein step (b) is carried out by homologous recombination.

59. (Original) The method of claim 57, wherein said host cell is a eukaryotic cell.

60. (Original) The method of claim 59, wherein said eukaryotic cell is a mammalian cell.

61. (Original) The method of claim 60, wherein said mammalian cell is a primary fibroblast, a human foreskin fibroblast (HFF), or a mouse embryonic fibroblast.

62. (Original) The method of claim 61, wherein said primary fibroblast is an NIH3T3 fibroblast.

63. (Previously Presented) The method of claim 57, wherein said bacterial nucleic acid sequences are introduced into the host cell by calcium phosphate precipitation, lipofection or electroporation.

64. (Previously Presented) The method of claim 57, wherein said bacterial nucleic acid sequences are introduced into the host cell by a viral vector.

65. (Original) The method of claim 57, wherein said host cell is a bacterial organism.

66. (Original) The method of claim 65, wherein said bacterial organism is *Escherichia coli*.

67. (Previously Presented) A method of mutagenizing the infectious herpes virus genomic sequence in the BAC of claim 36, which method comprises: (a) introducing the BAC of claim 36 into a bacterial host cell, (b) exposing the BAC to mutagenizing DNA molecules, whereupon the infectious herpes virus genomic sequence in the BAC is mutagenized.

68. (Previously Presented) The method of claim 67, wherein step (b) is carried out by homologous recombination between the BAC and the mutagenizing DNA molecules.

69. (Previously Presented) The method of claim 68, wherein there is a mutant allele in the mutagenizing DNA molecules and homologous recombination is carried out between the infectious herpes virus genomic sequence and the mutant allele.

70. (Previously Presented) The method of claim 67, wherein there is a transposon in the mutagenizing DNA molecules and step (b) is carried out by the transposon.

71.-74. (Cancelled)